Appendix Table 1. Question Text and Answer Format for Selected BRFSS Outcomes

Outcome	Question text	Recoded responses
(% missing)		
Avoided care due to cost (0.2%)	Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?	Yes (1) / No (0)
Influenza vaccination (15.8%)	During the past 12 months, have you had either a flu shot or a flu vaccine that was sprayed in your nose? (A new flu shot came out in 2011 that injects vaccine into the skin with a very small needle. It is called Fluzone Intradermal vaccine. This is also considered a flu shot.)	Yes (1) / No (0)
Ever had Pap test ^a (22.5%)	A Pap test is a test for cancer of the cervix. Have you ever had a Pap test?	Yes (1) / No (0)
Ever had clinical breast exam ^b (0.5%)	How long has it been since you had your last mammogram?	Yes (1) / No (0)
Ever had mammogram ^c (20.7%)	A mammogram is an x-ray of each breast to look for breast cancer. Have you ever had a mammogram?	Yes (1) / No (0)
Routine checkup (1.5%)	About how long has it been since you last visited a doctor for a routine checkup? [A routine checkup is a general physical exam, not an exam for a specific injury, illness, or condition.]	Within past year (1), else (0)
Pap test in last year ^a (0.6%)	Have you ever had the HPV vaccination?	Within past year (1), else (0)
Clinical breast exam in last year ^b (0.5%)	How long has it been since your last breast exam?	Within past year (1), else (0)
Mammogram in last year ^c (0.6%)	How long has it been since you had your last mammogram?	Within past year (1), else (0)

Source: Authors' analysis of data for 2010–2015 from the Behavioral Risk Factor Surveillance System (BRFSS).

Notes: Question texts are from the 2015 BRFSS survey instrument. Scale variables were treated as categorical in all regressions.

HPV, human papillomavirus.

^aLimited to women aged ≥21 years.

^bLimited to women aged ≥20 years.

^cLimited to women aged ≥35 years.

Appendix Table 2. Question Text and Answer Format for Selected BRFSS Covariates

Covariate	Question text	Recoded responses
(% missing)		•
Has insurance coverage (0.3%)	Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare, or Indian Health Service?	Yes (1) / No (0)
Age (0.0%)	Text for this question is not listed in the BRFSS codebook.	Positive integer
Preferred race (1.2%)	This variable is calculated by the BRFSS based on responses to other questions.	8 categories (White, Black or African American, American Indian or Alaskan Native, Asian, Native Hawaiian or Pacific Islander, Other race, No preferred race, Multiracial but preferred race not answered)
Cellphone survey (0.0%)	Is this a cellular telephone?	Yes (1) / No (0)
Veteran status (0.2%)	Have you ever served on active duty in the United States Armed Forces, either in the regular military or in a National Guard or military reserve unit?	Yes (1) / No (0)
Marital status (0.8%)	Are you: (marital status)	Married (1) / else (0)
Household income (8.8%)	Is your annual household income from all sources:	8-point scale (<\$10,000, \$10,000 to <\$15,000, \$15,000 to <\$20,000, \$20,000 to <\$25,000, \$25,000 to <\$35,000, \$35,000 to <\$50,000, \$50,000 to \$75,000, \$75,000 or more)
Number of adults in household (0.7%)	How many members of your household, including yourself, are 18 years of age or older?	Positive integer
Educational attainment (0.5%)	What is the highest grade or year of school you completed?	6-point scale (Never attended school or only kindergarten, Grades 1 through 8, Grades 9 through 11, Grades 12 or GED, College 1 year to 3 years, College 4 years or more)
General health (0.2%)	Would you say that in general your health is:	5-point scale (Excellent/Very good/Good/Fair/Poor)

Source: Authors' analysis of data for 2010–2015 from the Behavioral Risk Factor Surveillance System (BRFSS).

Notes: Question texts are from the 2015 BRFSS survey instrument. Scale variables were treated as categorical in all regressions.

All models were estimated both with and without imputed outcomes. Models with imputed outcomes are presented as the primary analysis, as these results were more conservative than the non-imputed estimates presented below. However, patterns and directionality in non-imputed models are consistent with the primary analyses.

Appendix Table 3. Sensitivity Analysis: The Association Between Driving Distance/Time to the Nearest Family Planning Facility,

Preventative Service Use, and Cost-related Barriers to Care, Excluding Observations With Missing Data

Outcome	Mean value (%)	Distance to nearest clinic (10s of miles)	Time to nearest clinic (10s of minutes)
		Estimate (95% CI)	Estimate (95% CI)
Influenza vaccination in past 12 months (n=3,767)	27.4	-6.8* (-14.7, 1.1)	-5.7* (-12.3, 0.9)
Annual checkup in past 12 months (n=4,409)	64.3	-5.6* (-11.7, 0.5)	-3.6 (-9.4, 2.3)
Avoided care due to cost in past 12 month (n=4,466)	25.3	8.2* (-1.0, 17.3)	8.9** (1.7, 16.2)
Ever had mammogram ^a (n=1,195)	55.5	0.2 (-17.2, 17.6)	-0.6 (-17.6, 16.5)
Had mammogram in past 12 months ^a (n=659)	28.6	-10.0 (-29.1, 9.2)	-9.9 (-29.6, 9.8)
Ever had Pap test ^b (n=2,502)	94.8	2.9 (-1.6, 7.4)	1.9 (-2.4, 6.1)
Had Pap test in past 12 months ^b (n=2,357)	59.1	-0.5 (-8.4, 7.5)	-0.5 (-7.0, 6.1)
Ever had clinical breast exam ^c (n=2,297)	87.3	-12.8*** (-22.4, -3.2)	-13.5*** (-20.7, -6.3)
Had clinical breast exam in past 12 months ^c (n=1,995)	56.1	-10.4 (-23.3, 2.4)	-10.1* (-21.1, 0.9)

Notes: All models are estimated as linear probability models, using BRFSS sampling weights and with SEs clustered by county. Estimates represent percentage point changes in outcomes. Models include controls for insurance coverage, age, race, self-reported general health, marital status, rurality, veteran status, year, number of adults in the household, educational attainment, household income, and whether the survey was conducted via cellphone or landline. Boldface indicates statistical significance (*p<0.10; **p<0.05; ***p<0.01).

BRFSS, Behavioral Risk Factor Surveillance System.

^aLimited to women aged >35 years.

^bLimited to women aged >21 years.

^cLimited to women aged ≥20 years.

Appendix Table 4. Sensitivity Analysis: The Association Between Driving Distance/Time to the Nearest Family Planning Facility, Preventative Service Use, and Cost-related Barriers to Care, Results From Logistic Regression

Outcome	Mean value (%)	Distance to nearest clinic (10s of miles)	Time to nearest clinic (10s of minutes)
		OR (95% CI)	OR (95% CI)
Influenza vaccination in past 12 months	28.1	0.80* (0.61, 1.04)	0.79* (0.60, 1.03)
Annual checkup in past 12 months	64.2	0.86 (0.67, 1.11)	0.92 (0.71, 1.19)
Avoided care due to cost in past 12 months	25.4	1.34 (0.93, 1.92)	1.29 (0.94, 1.78)
Ever had mammogram ^a	52.4	0.82 (0.43, 1.56)	0.78 (0.38, 1.59)
Had mammogram in past 12 months ^a	27.1	0.39* (0.15, 1.05)	0.46* (0.19, 1.09)
Ever had Pap test ^b	94.6	0.65 (0.31, 1.37)	0.54* (0.29, 1.02)
Had Pap test in past 12 months ^b	59.9	0.97 (0.60, 1.59)	0.93 (0.65, 1.33)
Ever had clinical breast exam ^c	87.4	0.38** (0.16, 0.89)	0.35** (0.16, 0.79)
Had clinical breast exam in past 12 months ^c	57.1	0.67* (0.45, 1.01)	0.69* (0.47, 1.01)

Notes: All models are estimated as logistic regression model with SEs clustered by county. Models include controls for insurance coverage, age, race, self-reported general health, marital status, rurality, veteran status, year, number of adults in the household, educational attainment, household income, and whether the survey was conducted via cellphone or landline. Boldface indicates statistical significance (*p<0.10; **p<0.05; ***p<0.01).

^aLimited to women aged ≥35 years.

^bLimited to women aged >21 years.

^cLimited to women aged ≥20 years.